



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,966	01/28/2002	Krag C. Smith	269-101P-CIP	6702

7590 12/13/2004

WILLIAM L. KLIMA  
2046-C JEFFERSON DAVIS HIGHWAY  
STAFFORD, VA 22554

EXAMINER

FISCHER, JUSTIN R

ART UNIT	PAPER NUMBER
----------	--------------

1733

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/055,966	Applicant(s) SMITH ET AL.
	Examiner Justin R Fischer	Art Unit 1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 6-45 is/are pending in the application.
- 4a) Of the above claim(s) 3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4 and 6-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 22, 2004 has been entered.

### ***Election/Restrictions***

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
- I. Claims 1, 4 and 6-45, drawn to a tire having a non-repeating colored pattern over at least 25% of the tire outer surface, classified in class 152, subclass 450.
  - II. Claim 3, drawn to a tire having a photographic or digital image on a tire outer surface, classified in class 152, subclass 450.
3. Newly submitted claim 3 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: claim 3 is an independent claim that is directed to a vehicle tire having an outer surface displaying a photographic or digital image on the tire outer surface; on the other hand, independent claim 1 (originally presented) is directed to a vehicle tire in which a non-repeating colored pattern is present over at least 25% of the tire outer surface. It is clear that

Art Unit: 1733

claim 1 does not require a photographic or digital image and claim 3 does not require the claimed extent of the pattern (at least 25%) and for that matter, does not even require a non-repeating colored pattern.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 3 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4, 6, 8, 10, 13-19, 21-24, 27, 28, 30-36, and 38-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sievi-Korte (US 2002/0066507, of record). Sievi-Korte is applied in the same manner as set forth in the Final Rejection mailed on June 21, 2004 (Paragraph 3).

Sievi-Korte describes a vehicle tire construction in which at least a part of the tire is formed of a material that changes color with temperature, wherein said material may occur as a suitable pattern, such as the manufacturer's logo, letters, figures, or stripes, on the tire surface. The reference goes on to describe a preferred embodiment in which at least one part of the sidewall, at least one part of the tread wing, or both of said parts

Art Unit: 1733

are formed of the above noted color material (Page 1, Paragraphs 10 and 11). While the reference fails to expressly suggest that the colored pattern is existent over at least 25% of the tire outer surface, one of ordinary skill in the art at the time of the invention would have found such a design obvious in view of the preferred embodiment noted above (one would have recognized the combination of sidewall and tread wing area to constitute at least 25% of tire outer surface) and furthermore, in view of the general teaching of Sievi-Korte that "it is obvious to those skilled in the art that the position of this material can be freely selected" (Page 1, Paragraph 10). Also, the degree to which the colored material covers the tire outer surface represents an aesthetic characteristic that does not contribute to the mechanical function of the tire. As such, one of ordinary skill in the art at the time of the invention would have found it obvious to include the colored material of Sievi-Korte over a region that is equal to or greater than 25% of the tire outer surface. Lastly, it is evident that a change in color from colorless to a certain color provides enhanced visibility. Also, a change in color in the evening due to a reduced temperature provides enhanced visibility (Paragraph 8).

It is initially noted that the claims as currently drafted do not positively require a non-repeating colored pattern, but rather only require a tire "configured" to display such a pattern (all tires can viewed as being "configured" to display a non-repeating colored pattern).

Regarding claim 4, the colored material can vary from one color to another or from colorless to a specific color (Page 1, Paragraph 8). One would recognize this description as describing materials that are non-black and non-white.

Art Unit: 1733

With respect to claims 6, 10, 13-19, as noted above, the colored material can be in the form of a logo, lettering, stripes, etc.. These patterns are being viewed as a single, non-black pattern. It is particularly noted that one of ordinary skill in the art at the time of the invention would have readily appreciated a design in which the colored material is raised since such an arrangement is extensively used in the manufacture of tires incorporating colored indicia or designs in the sidewall region.

Regarding claim 8, the tread composition would be expected to contain carbon black as is extremely well known and conventional in the tire industry.

With respect to claims 21, 23, and 42, the colored material changes color in response to an increase and/or decrease in temperature and thus necessarily changes color with time.

As to claims 22 and 24, the pigments of Sievi-Korte change color with time/wear and temperature and are reversible.

Regarding claims 27 and 28, the colored pattern does not form the entire sidewall, such that at least a portion of the sidewall would be formed of a carbon black containing composition (same as tread). In this same regard, the colored portion that is existent in the sidewall region is a different color than the tread.

With respect to claims 30-34, the tire construction defined by Sievi-Korte is used as a vehicle tire and thus is necessarily mounted on a rim (defines a wheel assembly). With specific regard to claims 31-34, the claims do not further define the structure of the claimed tire article or wheel assembly- the claims are directed to the method of selecting and matching the color of the tire rubber to an additional tire component. It is

Art Unit: 1733

emphasized that the selection of a color represents an aesthetic property that does not significantly contribute to the mechanical function of the tire.

Regarding claims 35 and 36, the tire construction of Sievi-Korte provides a substantially uniform colored surface, wherein the color is uniform throughout its depth.

With respect to claim 38, the patterned color surface of Sievi-Korte is existent over the circumferential and radial axis of the tire.

Regarding claims 39-41, the colored pattern of Sievi-Korte includes a thermo-chrome pigment (additive). It is further noted that the language of claim 40 requires that the coloring agent "is capable of forming a non-black and non-white color that is fully developed throughout the depth of the tire composition". It is clear that the pigment of Sievi-Korte is capable of being included in each of the tire components if such a limitation is intended.

6. Claims 1, 2, 4, 6-8, 10-21, 22, 24, 26, 28, 30-36, 38-41, 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogal (DE 19613801, of record). Rogal is applied in the same manner as set forth in the Final Rejection mailed on June 21, 2004 (Paragraph 5).

Rogal is directed to a pneumatic tire construction in which the side surface (sidewalls) and/or the tread are colored with at least one pigment. While the reference fails to expressly define the extent of the colored region as equal to or greater than 25% of the tire outer surface, one of ordinary skill in the art at the time of the invention would have found such an arrangement obvious in view of the general description of Rogal noted above. In particular, the tire outer surface is formed of the sidewalls and the tread

Art Unit: 1733

and Rogal states that both the tread and sidewalls or simply one of the components can include a pigment to define colored regions. In view of this language, one of ordinary skill in the art at the time of the invention would have expected and readily appreciated a tire construction in which at least 25% of the tire outer surface is formed of a colored pattern. Also, the embodiments in which only the tread and the sidewall are colored would be expected to result in a construction having more than 25% of the tire outer surface as a colored pattern. Lastly, the tire of Rogal is designed to provide enhanced visibility (e.g. use of luminescent pigments).

It is initially noted that the claims as currently drafted do not positively require a non-repeating colored pattern, but rather only require a tire "configured" to display such a pattern (all tires can viewed as being "configured" to display a non-repeating colored pattern).

As to claims 4 and 6, Rogal suggests a wide variety of pigments, including alkali blue. In the embodiments where the tread or sidewall is colored, this design is seen to constitute a "single, non-black colored surface".

With respect to claim 7, the assembly of Rogal can include different color strips.

Regarding claim 8, one of ordinary skill in the art at the time of the invention would have expected the sidewall and tread to include carbon black when they do not form a colored pattern.

With respect to claims 10 and 11, the colored layer of Rogal is applied as a motif or a pattern- this is seen to constitute "art". Also, certain patterns (art) are only displayed when the vehicle reaches a certain speed (different colors are suggested).



With respect to claims 12-19, the inclusion of a wide variety of indicia or designs would have been well within the purview of one of ordinary skill in the art at the time of the invention. These elements are extensively provided on tire sidewalls for a variety of reasons, including aesthetic purposes and information purposes. It is additionally noted that raised indicia or designs represent a common and conventional means of including these elements into tire sidewalls.

Regarding claims 20 and 21, the colored regions can be designed such that they are a single color (constant over time) or they can be formed with pigments that change color over time (e.g. fluorescent pigments).

As to claims 22 and 24, Rogal describes the inclusion of optical pigments that change color over time and with increasing speed. This is seen to constitute a change in color with respect to wear since an increase in wear is observed over time and with increasing vehicle speed.

With respect to claim 26, the inclusion of fluorescent or phosphorescent pigments results in a colored pattern or region that lights or brightens the tire under certain conditions.

Regarding claim 28, the sidewall can be colored while the tread remains black and vice versa.

With respect to claims 30-34, the tire construction defined by Rogal is used in as a vehicle tire and thus is necessarily mounted on a rim (defines a wheel assembly).

With specific regard to claims 31-34, the claims do not further define the structure of the claimed tire article or wheel assembly- the claims are directed to the method of

Art Unit: 1733

selecting and matching the color of the tire rubber to an additional tire component. It is emphasized that the selection of a color represents an aesthetic property that does not significantly contribute to the mechanical function of the tire.

Regarding claims 35 and 36, the colored region of Rogal is substantially uniform and constant through the depth of the region.

With respect to claim 38, the colored region of Rogal is existent over the circumferential and radial direction of the tire.

Regarding claims 39-41, Rogal described the colored region/pattern as including at least one pigment. It is further noted that the language of claim 40 requires that the coloring agent "is capable of forming a non-black and non-white color that is fully developed throughout the depth of the tire composition". It is clear that the pigment of Rogal is capable of being included in each of the tire components if such a limitation is intended.

With respect to claims 43-45, the colored pattern of Rogal changes as a function of the vehicle speed and thus necessarily changes color as a function of pressure (increase in vehicle speed accompanied by increase in pressure).

7. Claims 1, 2, 4, 6-9, 21, 22, 25, 28-35, 37, 39, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creasey (US 3,814,160, of record). Creasey is applied in the same manner as set forth in the Final Rejection mailed on June 21, 2004 (Paragraph 6).

As best depicted in Figure 1, Creasey is directed to a tire construction in which the outer-tread layer or the under-tread layer can be colored, such that the reference is

Art Unit: 1733

directed to an embodiment in which the outer tread surface can be colored (e.g. yellow) (Column 2, Lines 1-20). While the reference fails to expressly define the colored region occupying at least 25% of the tire outer surface, one of ordinary skill in the art at the time of the invention would have found such a range obvious in view of the fact that the tire outer surface is defined by the tread and the sidewalls- in one of the embodiments noted above, the entire tread surface is formed of a colored rubber composition (e.g. yellow). Being that the tread surface area is generally greater than the sidewall surface area, one of ordinary skill in the art at the time of the invention would have expected this embodiment to have more than 25% of the tire outer surface covered with the above noted colored region/pattern (stripe). It is further noted that the specific area of the tread and sidewall is a function of the type of tire. It is emphasized that the degree to which the tire outer surface is formed of a colored pattern represents an aesthetic feature that does not significantly contribute to the mechanical function of the tire. Lastly, the colored material of Creasey is described as being a tread wear indicating assembly.

It is initially noted that the claims as currently drafted do not positively require a non-repeating colored pattern, but rather only require a tire "configured" to display such a pattern (all tires can be viewed as being "configured" to display a non-repeating colored pattern).

Regarding claim 6, during normal running and wear, the outer surface is a single colored surface.

Art Unit: 1733

With respect to claims 7 and 9, during uneven wear, the tire surface is formed of multiple colors. In particular, the color of the outer tread surface is exposed and the color of the under tread layer is exposed in only the regions where tread wear (uneven) is experienced. Furthermore, Creasey suggests that the colored outer tire surface can be white. Also, a common white sidewall could be included in the tire design of Creasey- as noted above, the particular selection of colored regions does not appear to significantly impact the structure and thus function of the tire.

Regarding claim 8, the tire sidewall of Creasey is formed of the conventional black tire rubber composition.

As to claims 21, 22, and 25, the colored surface of Creasey changes with time (the under tread layer becomes exposed as a result of wear). In this instance, the change of color is not reversible.

With respect to claim 28, the outer sidewall surface is black while the outer tread surface is lightly colored as described above.

As to claim 29, the outer tread surface of Creasey will be multi-colored as a result of uneven tread wear.

Regarding claims 30-34, the tire construction defined by Creasey is used in an automobile tire and thus is necessarily mounted on a rim (defines a wheel assembly). With specific regard to claims 31-34, the claims do not further define the structure of the claimed tire article or wheel assembly- the claims are directed to the method of selecting and matching the color of the tire rubber to an additional tire component.

With respect to claim 35, the outer tread surface of Creasey has a substantially uniform colored surface.

Regarding claim 37, the tire surface of Creasy can be viewed as a non-uniform colored surface since during tread wear the colored region will not be continuous over the extent of the tread surface.

As to claim 39, Creasey describes the inclusion of a suitable pigment to affect the desired color (Column 2, Lines 1-20).

Regarding claim 43, the color of the outer tread surface of Creasey is affected by an increase in pressure- the higher the pressure, the more the tread will wear and the quicker the color of the under-tread layer will be exposed.

### ***Response to Arguments***

8. Applicant's arguments filed November 22, 2004 have been fully considered but they are not persuasive. Regarding Nichols, it is agreed that the colored area is provided on only one sidewall of the tire and is only approximately one-half of the surface of said sidewall and as such, the rejections with Nichols have been withdrawn. However, with respect to Sievi-Korte, Rogal, and Creasey, a single, continuous colored layer (analogous to a colored stripe) is seen to constitute a non-repeating colored pattern. It is unclear how a single colored stripe or ring represents a repeating pattern since only a single stripe is present (no elements of the pattern are repeating). Furthermore, with particular respect to Sievi-Korte, the reference teaches that the colored material may be located in the tire in any shape desired, such as the manufacturer's logo, as letters, or as figures (Page 1, Paragraph 11).

**Conclusion**


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Justin Fischer

December 6, 2004

  
BLAINE COPENHEAVER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700